

Brasil 1976

4°

# NOTE BOOK



75 SHEETS

4" x 6"



Brasil 1976  
4º Safari - Bahia



May 20

2492

*Atractantia rostrata*

Mun. de Marañ, (57 km  
W of ~~Marañ~~<sup>Marañ</sup>) 5.5 km S  
of Marañ city

Alt. 20 m.

(± 15 km from the  
sea shore)

Abundant on patches of  
moss in region of  
"campo". Soil very  
rich in sand, light-  
to white color.

Forest of *Piassara* very  
abundant also

Most of the clumps  
getting old and <sup>dry</sup> dying  
In some places, to flower.



cence with ~~rose~~ new  
spike in anthesis.

In one spot more  
new culms found with  
newly developing branches  
and a few new culms  
with bud complexes.  
Forms very dense, large  
clumps, ~~all~~ ± curved or  
decumbent at base.

Culms cylindrical, marked  
only few smooth  
red and white - all  
of them fall very soon.  
Smooth when very young  
color, smooth, no blade  
developed, only one  
narrow, very small  
seen. Fresh new shoot,  
with sheath green

marked, in flower  
violet, ~~the~~ <sup>culms</sup> with  
some color - very  
smooth, solid with  
rip of space (in space)  
in middle of fifth.  
Left. large, perfect  
spike, longish at  
end of leaf-complex  
and set aside in  
place of some of  
the branches. Top  
or bases of spike seen  
about at base of  
culms at basal nodes  
of culms.

Stems yellow when  
young, changing to  
dark copper orange and  
late brown or black.



leaves with long  
lanceolate blade -  
Prophylls bracts at  
base of buds or leafy  
bracts short, thin  
for it elongate as  
in other *Struth.*  
As a result, the  
branch complement  
at maturity showing  
the upturned base  
and base of 2c bracts  
very clearly.  
Branch complement:  
one central terminal  
and 2-4 ± 2c on the  
sides (each one gives  
the next)  
Node without line of  
hair or petiole - Node

Dupl.: SI, Kew, ~~Kew~~ - Paris, Berlin,  
Lanseria, Pretoria, Tokyo & N.Yak.

without ridge -  
Culm ± 1.2 - 1.3 cm  
lanceolate - thin  
all over, too  
some internodes  
low mid culm seg  
long - one node 97cm

No photo -  
fascicles and internodes  
FAA: 3 nodes: leaves &  
culm, flower & bud.  
(very good ones.)

Several small young inflorescences? with  
multipanor spike? and others  
with spike and shoots coming  
from the same head.



On road from Ubatuba  
to Marim at 33 km

3 from Ubatuba

we saw A. cardinalis  
and despage, then  
the main. Very pretty  
happily from very  
high trees as they

Before that we saw lots  
of hetbergia very pretty  
on road Ubatuba - Ma-  
rim, ca. (16)? 17 km NE of  
Ubatuba. (The road is  
a Marim and is the  
same route we note  
my case. In road  
and the old camino  
re x alle, A few to  
and a of the road

more, on the curve,  
the brecha del camino  
este hetbergia. It is an  
old cacao plantation  
under fourth (clear) trees.  
It is on a slope, going  
down the road to a  
creek, the ~~road~~ stream  
let me rocks, long like  
hops,!) Pharynx with  
Pharynx and hetbergia  
abundant. The grass and  
ditch for the  
Larvae hetbergia  
crawling and working  
at night - but of  
a color, most very  
rough & irregular  
brood, large to eat  
leaves, notes quite



marked -  
looks like the Nethe-  
fic from Japan.  
wood, next to the  
vines but here <sup>nodes</sup> ~~are~~  
are not dark, and  
the buds. All light  
green. (Vines on old wood  
to Manai)  
(Monte - Manai : 62 km)

May 21

2443

~~Polycarpus~~ *Ichnomanthus*  
*leiocarpus* (Spreng.) Kunth  
<sup>det. M. T. Hickey</sup>  
Monte de Ilheus, 16 km S  
W of Olivença on road  
Olivença - Vila Brasil (ex  
~~Antiga~~ Ruimbe)

Common at edge of  
forest and side of  
road. Tall for a  
shrub, 1.50 m, stout  
1.50.

Big terminal panicles.  
No photo.

FAA. 2 nat: one  
infl. and 1 leaf.  
spikelets underdeveloped.



*Shimia macrophylla*

2444

~~Shimia macrophylla~~

Near. to Ilheus, 16 km SW  
of Olivença on road  
Olivença - Vila Brasil  
(old town "~~Antiga~~" "Ruínas")

May 21, 1976

Alt. 40 m. s.m.

FAA: 1 very wide: in/wood; 1 m. wide

Stems: 1 120 leaves; 1 50 culms

Flowers & roots (4)

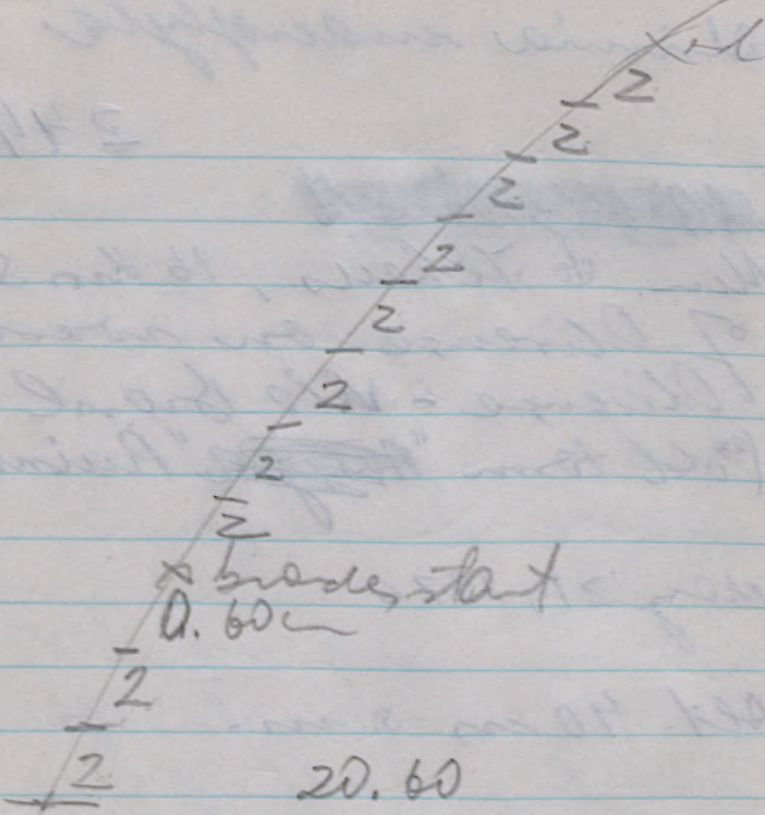
Boys: 1 (120)

3:1: 1 (120)

Plots, B & W: well 64 (1 to 36)

Kodachrome: well 65 (1 to 38)





.83, .75, .67, .62  
top internode

Like 0.5 - 0.7, 0.9?  
less than 1 cm.

## Piassara

grows in intern. collect  
rhizome collect  
living port collected

Very abundant all over,  
4th port, growing in  
Mato Atlantica, central  
port of <sup>very</sup> sandy soil  
Dominant, or almost  
is piassara palm and  
the same.

Beautiful, so so, dipping  
over hanging anywhere  
making some clumps.  
but 20-25 <sup>m. high</sup> or more  
only one name (not  
the very tall) was  
20.60 m.  
bark very hard, solid.  
with regular structure



all over. Very hard (more than *St. det. the*).

Surface very smooth,  
turning to yellow or  
orange, sometimes a  
little purple. Blooming  
profusely and in  
many places with  
new shoots (In this  
area the forest has  
been cut here and  
there a little not too  
long ago to make  
it clear the road  
Proctor, not induce the  
flowering?) -

Under leaves: persistent  
in lower part of culm  
until rotten, culm looks  
naked or almost

late section, upper in  
the branches when  
branches start to leaf.  
Sheath smooth and  
blade smooth, not  
very strong. - Blade  
erect large lanceolate -  
triangular, a little wider  
at base, <sup>longer</sup> longer than  
sheath or just about  
the same length.  
Dry color - with a  
little pink with red  
retae. Blade thinner  
than sheath, ~~usually~~  
Node without ~~ridge~~  
to the ridge.

Lower part of bank  
complete extending  
down and forming the



lip per-entory. and  
Yanga, up to the top.

This strain are (as  
one) in lower part  
of culm. On both  
sides 2 or 3 and  
abundant itself.

In mid culm giving  
a step, half to the  
back to the culm.

bract and possibly fully  
when old showing  
representative of the  
strain.

leaves several on leaf  
w/pt. with long  
culm, dense with  
small setae. Blade  
large lanceolate, rather  
thick.

In flower: perianth petals  
at least they keep

1) producing small and  
smaller petals? for  
sense, heavy ~~but~~  
branches and are  
scorpioid form, like

A fallate. base of  
flower are covered by bracts  
Spike very long.

when <sup>they</sup> grow?  
or when <sup>they</sup> are <sup>small</sup>, they  
are <sup>prolonged</sup> longer and longer  
leaf, throat like with  
antheris vixely space  
thin, (no glumes or  
bracts at base of flower  
many on antheris at  
least 2 times seen  
dark violet color.



Fl. produced at  
end of branch compl-  
ment and in many  
plants, everywhere;  
in place of developing  
branch, at nodes  
scale with no leaves.  
top sph? or ?; green  
with intense violet  
mark?; mostly co-  
fused, starting ~~below~~  
in flower near the  
first sph.

look exactly like  
same type of sph  
as the other, but  
green only on the road  
(not yet colored  
but in that one  
few, 2, 3 sph on

end of branch, but  
much longer, more  
over 20 cm long.

leaf not rather ~~thick~~  
thin but it is.

0.6 - 0.8 cm and  
more ~~as 1 cm.~~

top = internodes



May 22

2445

Mentadep (en flor)

Rua. de Ilheus, estrada de  
Olinda - into Brazil (ex  
Paraná) 21 km SW?

St. Olinda  
Fazenda Espírito  
Alt. 70 m.

Only one <sup>nest</sup> seen found  
in flower, just one  
cabin (what) and  
2 or 3 more dry.  
In forest (partially  
cut (not much)  
with Pissate. (but  
not too much.  
There will be another



Herbaceous & completely  
joined end of long  
whitish bark flange  
but looks that it  
end long app. part  
of cone say for  
and some starting  
to the north.

In some one, not  
very abundant seen  
above herbaceous  
things and for  
the one who noted.  
Is it the same as  
the one in flower?

Flower specimen  
rather thin culm  
a few leaves, life.  
Leaves smooth,  
flowers. Dark color

± violet.

Only herbaceous sp.  
not photo, no P.H.A.  
(The herbaceous form -  
like the same  
collected next day  
with 7 numbers, just  
in cone -



May 22

2446

*Abroma gracilis*

~~Abroma gracilis~~

(this sp. with flowers  
on fruits!)

Mun. de Ilheus, road

Olivença - Vale Brasil,

ex Ruinha (vicinity of town),

6 1/2 km SW of Olivença  
city.

Alt. 75 m

Photo: B. & W. 66 (1 to end)

Ektachrome: 67 (1 to end)

FAA: D. & W. with in fl.

①: buds, all steady

1: leaves

③

Bong - 1 -

3: 1 - 1

(6 total)

①

(all 1 for

② very before)



Growing in Hata tundra-  
les, vertical type of forest  
on white sand soil  
and many *Picea*  
*mariana*

Abundant in this area  
but ~~most~~ many plants  
already dry and over-  
blown and laying  
on the ground, very thick  
ch. and shrubs, scattered  
from dense forest very  
trees and other plants  
"toda curesada", probably  
up to 8 m tall.

Base of trees rather  
thick, dense, but  
very strong, scrub  
of ~~the~~ *Picea*  
solid, very strong when

but thin - very smooth  
surface, all <sup>adult</sup> *Picea*  
yellow.

Under smooth forest  
only very late forest  
sawtooth, similar  
to the other sp., but  
smaller. Black wood  
A, event.

Leaf at ~~end~~ end of  
leaf complex at  
at nodes (very thin)  
leaves - flowers.

Leaf 2-3 or few spk.  
Spk 3 - ~~leaf~~ very  
long and ~~thick~~  
spk - some 18, 20  
27 or little more  
each flower probably  
giving late

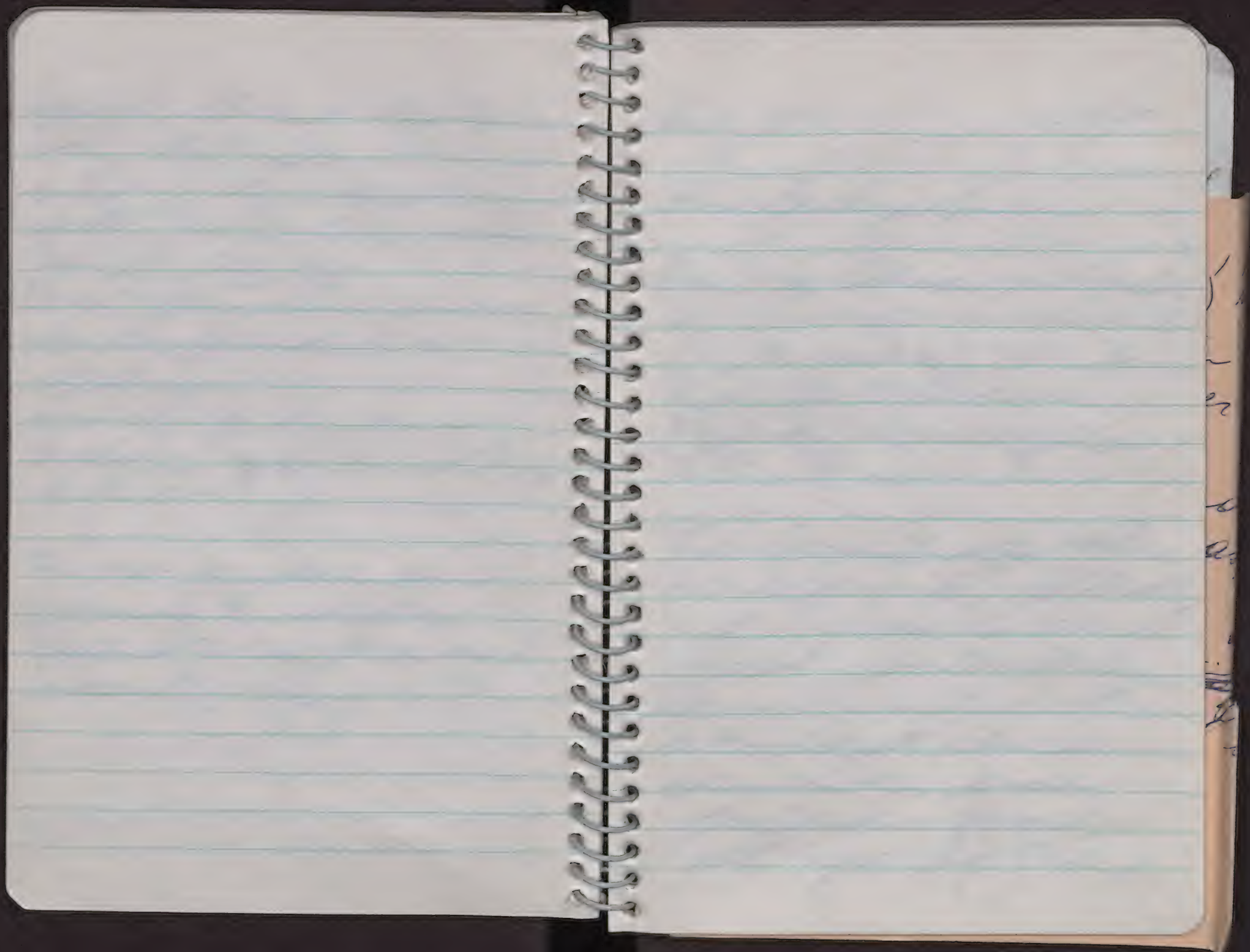


Sphal. Throat like  
very delicate, thin  
and fleshy. Each  
sphal. fr. 15 or 16 cm  
to 20, 26, 27

Each sphal. 1 cm more  
closely spaced than  
other sp.  
Fruit, fleshy, many  
leaves behind on  
leaf 2-3 ft

In same place is  
growing *A. radiata*  
full of inflorescences,  
mostly dying out.







May 23

2447

*Merostichus* sp.

Near the Then, a road  
to Oliveira - Villa Brasil  
(see Ruimbea), near  
SW? of Oliveira  
Fazenda Espiranga -  
Alt. 70 m.

In forest of rather  
sandy soil, partially  
cut, clear, because  
road construction -  
low but not  
abundant, seen  
some as small  
specimens found  
at edge of trail



in flower. (but not  
sure.) The one in  
flower was only  
very thin stems, young?  
look like I collected  
before.

culm & thick walls  
very ~~soft~~ up.  
light, & thick walls  
mottled green, over  
in places with  
white wax.

Nodes very thick  
with prominent  
black ridge, between  
nodes, branches & roots,  
rather thick.

Leaf lanceolate,  
~~and~~ rather thick,  
but not very large

culm leaf with  
sheath very thick,  
smooth and glossy  
broad lanceolate  
upward.

culm  $\pm$  1 cm or little  
more diameters.

In some areas  
one old, dry  
New today, but probably  
just passed.

Also Atracta the  
cardinalis is almost  
finished with flowers  
and in most of places  
dry. In one spot  
still green and  
flowering.

No photo. yet, but  
will repeat



FAA - 2 nials with  
buds and leaves -

May 24

2448

Same as *Stemodia*

From the Iloilo, entrance  
Oliveros - Vito Brasil, &  
Purimbe, 6 km SW of  
Oliveros

alt. 75m

FAA - 2. (inf, leaf)  
Bog - 1  
3.1 - 1

no photo

living plant

Very abundant in  
many parts of forest



mato, Atlantic, wet  
forest, growing in sand  
white - humid forest.  
Flowering everywhere  
may, many flowers.  
Is the fruit at  
edge of humid or  
forest.

FRA: 1 mal  
Song: " "  
3:1: " "

Living plant collected.

May 24

2449

Pimenta leptophylla

Mun. de Ilheus, Estrada  
Oliveira - Rio Brasil  
e Ruimbe, 7 Km SW  
of Oliveira city

Alt. 75m

Living plant collected.  
FRA 2: inf, leaves  
no song  
no photo

Abundant on mato  
Atlantic, wet forest



near the oven with  
very sandy soil, grows  
in sand.

Humid type of forest  
lots of rain. Dominant  
in forest Diacota palm  
Many plants there, and  
pretty forest. Very pretty  
forest.

Pineapple - 11 very ripe,  
and several more on left  
main culm & leaf -  
FA

May 24

2450

*Althemia tenuis*  
~~Arthrostylidium~~

Mon. Le Theus, 16.5 km<sup>30</sup>  
SW from Olinda, 45  
on road Olinda -  
Vila Brasil, ex Ruimbe

Alt. 75m.

FAA: 3 incl  
1 very ripe fruit  
1 root & culm  
1 leaves.

Photo B & W: roll. 68

(from 1 to 30)

Electron: 69- (1

to 18 21



growing in mata  
lotonias, coastal type  
of forest, very humid,  
very rainy region,  
with white sand  
soil. *Passara Palm*  
being one of the common  
plants in the forest.  
Very abundant and  
dominant all over  
the forest, climbing as  
high as the trees and  
hanging from them,  
practically covering  
completely the vegetation.  
Foliage of a very light,  
yellow shade of green,  
delicate, very small  
leaves, very beautiful.

Clumps dense, with  
very hard culms,  
thin, 1 to 8 mm  
diam. solid or  
almost so, with a  
very small humer  
in center, surface  
smooth.  
Culm leaves persistent  
at base of plant,  
later push away by  
developing branches  
(blade erect, a continua  
tion of sheath).  
One central very do-  
minant axis, very  
often terroper in long,  
and thick branches  
(to climb) and several,  
to many very thin



branches on both  
sides. Base of main  
axis or of the whole  
branch complement  
extending downwards  
and protruding in  
the same position  
as in the two others  
sp. of *Alvimia*.

Base of main axis  
segmented, being at  
first by light colored  
bracts & prophylls, (not  
very long).

Very beautiful samaras  
hanging from very high as  
frapes and being about  
completely the trees

(raining a lot when  
collected it.)



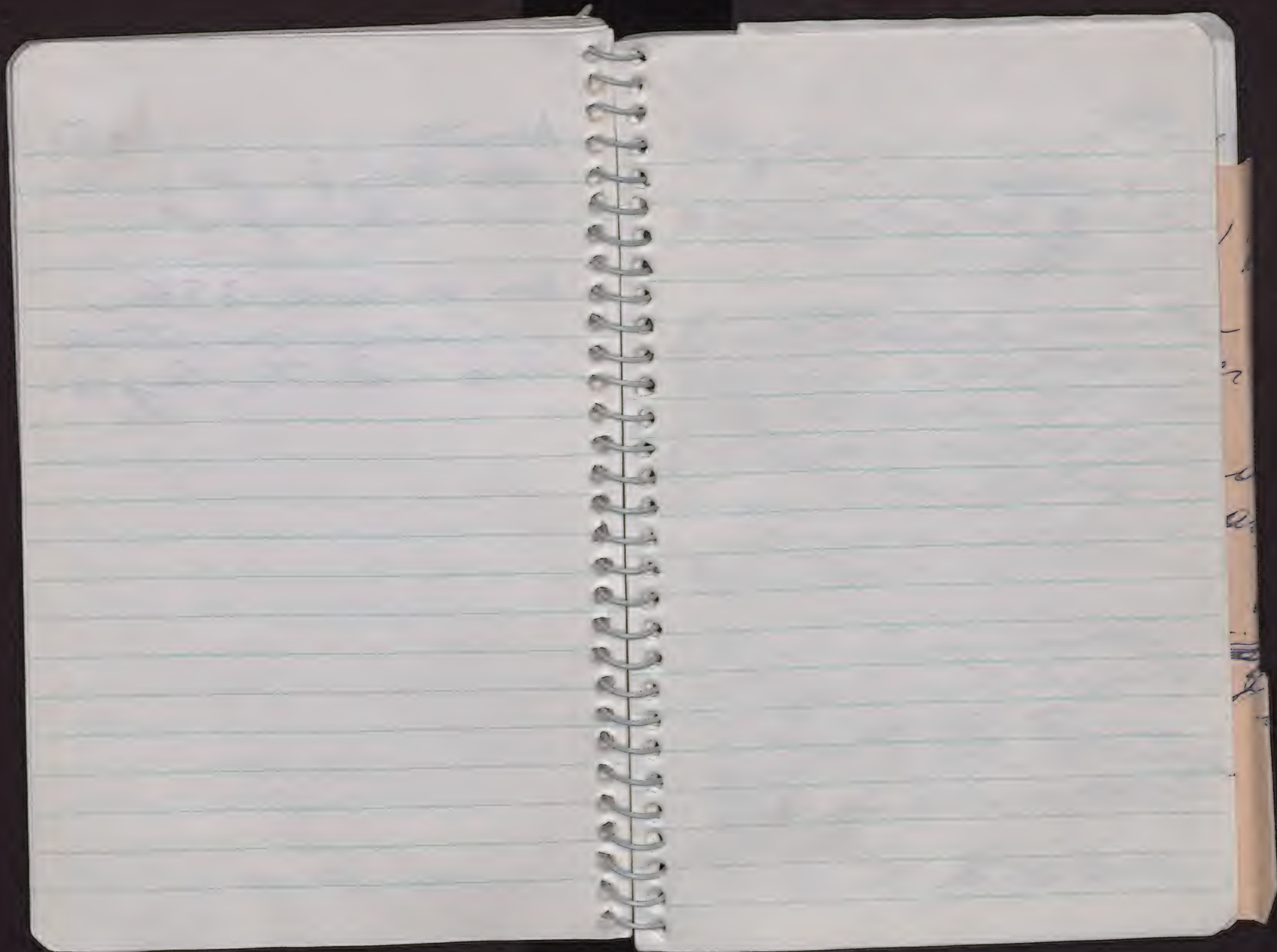
May 25

2451

Mentadoy (in flower)  
(red & yellowish)

Mun. de Mue, 3.5 Km  
S of Mue on strada  
Mue - Santa Cruz -







May 26

2452

*Atractantha* <sup>cristata</sup> ~~nov sp!~~  
(in fls)

Mun. de Llanos, some (W)  
leaves as a to taste  
the - (distance 14.5-5 Km  
from the main road.) total for  
the: 40 Km S of Mun.

Alt. 75m

Also in a state  
at the two swimming pools,  
first type of the  
found after the swamp  
Soil is almost white  
sands.

In same area another



Atractodes, Phil, probably  
same collected in  
top of fern in  
Ivinskia.

Beautiful Atractodes  
but very late in flower  
first, 4 fl. many

by - thin, white  
with ring of holes  
surface smooth  
may almost look  
(fungus?).

One main culm  
up. base, all  
bracts fell early  
one or two, a  
few bracts on  
each side. & very  
branched 4,

Antonio Gonzalez  
to Fajense.

Leaf - half scapiform  
half semipinnate. on  
end of leaf rough  
base of bracts  
base of plant, roots  
everywhere, some  
at base of young plants  
almost base of rhizome  
Nodes not prominent  
look like the Atract.  
I collected in Valenga  
top, white leaves  
black.

FAA: 3 flowers,  
leaves, stem.

Photo: B & W. roll # 68

Jan 30 - 36 - end

Roll # 70 Jan 1 to end?

Ektech. roll # 69. (20 - 36 -



hyacin, gonocoid  
internode  
trip point.

Me

~~80~~ (only 2 sets)

~~82~~ only 2 sets

found

~~Aspidiot~~ in front  
type (mate literature)  
foil - Aspidiot, in  
chip and chipping over  
it one spot only  
broken with thick wood  
~~thick~~ pith. Surface  
with long, extended  
~~whole~~ <sup>new</sup> ~~same~~ time  
Foliage <sup>new</sup> ~~leaf~~ <sup>folly</sup> ~~leaf~~ with ~~new~~  
Inflorescence at end

2451







~~Missing.~~

~~2380 (2-2-2)~~

~~(2382) 2-2-2 found~~  
~~Olyria sp.~~

~~fact~~  
~~We need large~~  
~~of 2-2-2 80-82 for type~~

~~2380~~<sup>OK</sup> - no labels

2398<sup>OK</sup> *Schmatus*, missing

~~2400~~<sup>OK</sup> - no labels

2 bromeliads ~~2393~~<sup>OK</sup> *Guyanae* no label

*Guyanae* ~~2393~~<sup>OK</sup> " "

2391 - *Vriesia*<sup>OK</sup>

~~2401~~<sup>OK</sup> - no label. (cardinals)

~~2404~~<sup>OK</sup> - no label (11 leaves) *seedling* -

2407 *Dioscorea* *pinn.* no label

2412<sup>OK</sup> *Fern* *missing*

2414, 2415, 2416, 2417 *missing*  
OK OK OK



Hyacinth, gonostylis  
intermedia,  
trip flant-

May 27

2453

Phimna tenuis  
New Guinea

Mun. Le Mass, outside Mue-  
-landville, 13 km South  
of Mue city-

Alt. 10 m.

<sup>1/2</sup> Delicate, the bamboo  
growing at edge of  
muddy stream in  
a patch of forest.  
This one is a ~~cut~~  
remain of cut area  
become soil construction  
Pole green phase - only  
old leaf complement  
at base of some culms



a little darker green  
then on every side of  
two blackish brown for pale  
green.

but very smooth, thin  
and bald, with a  
little hole in the center  
but leaves persistent  
late autumn when buds  
develop. Sheath smooth  
lying on flat. Node  
very long & some long.  
prolonged sheath. Short

Node without ridge  
but ad bud complete  
quite high  
above nodal ridge  
with frumatory, small  
and base of node

are repeated.

Many thin small  
all round.

Node of foliage leaves  
very narrow, thin,  
small.

One main branch  
many subtop in  
same place, then very  
long. and strong  
velvety, week thin  
and hanging, in  
the case of the very  
long ones.  
bud complete  
diffusely spread - NO  
flowers seen.



no photo, no rhizome  
no living plant

FAA: 3 mats:

Twigs, leaves, culms  
buds

of culm segments and  
1 jarrautho-  
~~brood~~ plant.

Material sent to New to  
The Penrose

2378

2221

2395

2225

2412

2381

2416

2414

2417

2425

2426

2431

2432

2434

2437

2440

2443



10  
5  
4  
3  
2  
1

15.85

2.55.0

18.85

8.85

2.55.0

18.85

1.15.0

1.15.0

1.15.0

1.15.0

1.15.0

1.15.0

1.15.0

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1.15.0

1.15.0

1.15.0

1.15.0

1.15.0



Lysefson B. de Oliveira

Km 22 da Rodovia Itaipu  
Itabuna - CEPLAC-CEPEC

BOTA Nº 39

TALMON S. SANTOS  
BOTA Nº 41



St. Alain, Fay. Marsden  
on etrade Oliveira -  
Vila Brasil - (copies  
for friends, make  
note book).

Fay. Ipiranga - Adminis-  
trador Sr. Roseiro  
ad. is both very  
nice.



MADE IN JAPAN